

# **The need of safety-net programme for a mass education system**

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**Background:** The Project Yi Jin (PYJ), an alternative pathway for secondary school leavers and adults to further their education, has been receiving full support from the government, the Federation for Continuing Education in Tertiary Institutions (FCE) in Hong Kong and the public. Graduates of PYJ have the equivalent academic status of their counterparts in the main stream education. It was first implemented in 2000/01 by the FCE and has been offered to more than 35,000 students by 2006/07. With the success of the programme as a safety-net for a mass education system, it should continue to function more vigorously as new reforms are being implemented in the Hong Kong education scene in the future. The Chief Executive in his 2004 Policy Address has set out the direction to develop a new secondary and university system, i.e., (3+3) for secondary + 4 (tertiary) [the old one is (3+2+2)+3], to be launched in 2010/11, that will effectively prepare the next generation to cope with the challenges of the 21st century and the demands of the rapidly developing knowledge-based society. The new system, together with substantial modified curricula including the newly developed applied learning courses (ApL), is supposed to be able to look after all secondary students.

**Aims and focus of discussion:** This paper aims to argue the necessity of launching a new version of Project Yi Jin (nPYJ) concurrently together with the new 3+3+4 academic system. In light of the contemporary global educational systems as compared to that of Hong Kong, it is postulated that the launching of nPYJ as a continuation of the successful PYJ is both legitimate and indispensable with regard to the carefully observed current global fashion of lifelong learning and continuing education in which diversity, equity, and flexibility are highly valued.

**Method:** A comprehensive comparative review was carried out on eleven selected oriental and occidental countries and regions, namely, Australia, Canada, Germany, Japan, South Korea, United Kingdom, United States, China, Taiwan, Singapore and Macao, focusing on the worldwide trend of constant high school drop-out rate as well as the mentioned countries' respective senior secondary schooling articulation policy leading to higher education, in particular shedding light on the establishment of alternative pathways towards tertiary education alongside the conventional educational track.

**Conclusion:** With the literature backdrop and empirical support, it is shown that high school drop-outs are inevitable no matter how well-defined an education system may be. Thus this is where the "safety-net" contingency plan is found essential. A new version of Project Yi Jin (nPYJ), to be offered in parallel with the Hong Kong's new 3+3+4 secondary academic curricula, is indispensable to the new educational structure in the territory which fundamentally helps transform the conventionally somewhat segregated and elite educational system into a mass one. Regarding the curricular design, both PYJ and nPYJ will focus on generic skills and a wide range of electives will be offered as well to arouse students' interest of study.

## **安全網計劃在集體教育中之必要性**

**背景:** 毅進計劃 (PYJ) 是一個為在中學階段已輟學的青年及成年人而設的另類進修途徑，是項計劃一直獲得政府、香港持續教育專上聯盟及公眾的鼎力支持。在毅進計劃中成功的畢業生會獲得在正規教育中的同等學術資格。計劃始於 2000/01 年度，直至 2006/07 年度，聯盟已為超過 35,000 名學生提供讀書機會。作為整體教育中的一個安全網計劃，毅進計劃的成功推行，應該在本港未來教育改革中更積極地佔一席位。特首在其 2004 年的施政報告中定下發展一個會在 2010/11 年落實的新中學及大學學制之方向 - (3+3) 的中學學制與及 4 年的大學學制 [舊的為(3+2+2)+3]。這個改革會有效地令下一代應付在廿一世紀及這個迅速發展、以知識為本的社會的挑戰與要求。這個新的制度，加上包含了新推行的應用學習科目(ApL)，理應能夠照顧到所有中學在學學生。

**目標與討論重點:** 本文章旨在討論在新的 3+3+4 學制中推行新版本毅進計劃(nPYJ)之必然性。現時全球性的終身學習與持續教育的取向高度強調多元、平等和多變，透過將現時的香港教育制度與之相比，筆者發現新版本毅進計劃的推行是合理而且必需的。

**研究方法:** 筆者對十一個揀選的東方和西方國家或地區進行了一個全面性的研究和比較，其中包括澳洲、加拿大、德國、日本、南韓、英國、美國、中國、台灣、新加坡和澳門。筆者集中在全球性持續高企的高中輟學率，以及個別國家由高中進入高等教育的升學銜接政策，重點集中在主流升學途徑中如何建立其他達至入讀高等教育的路徑。

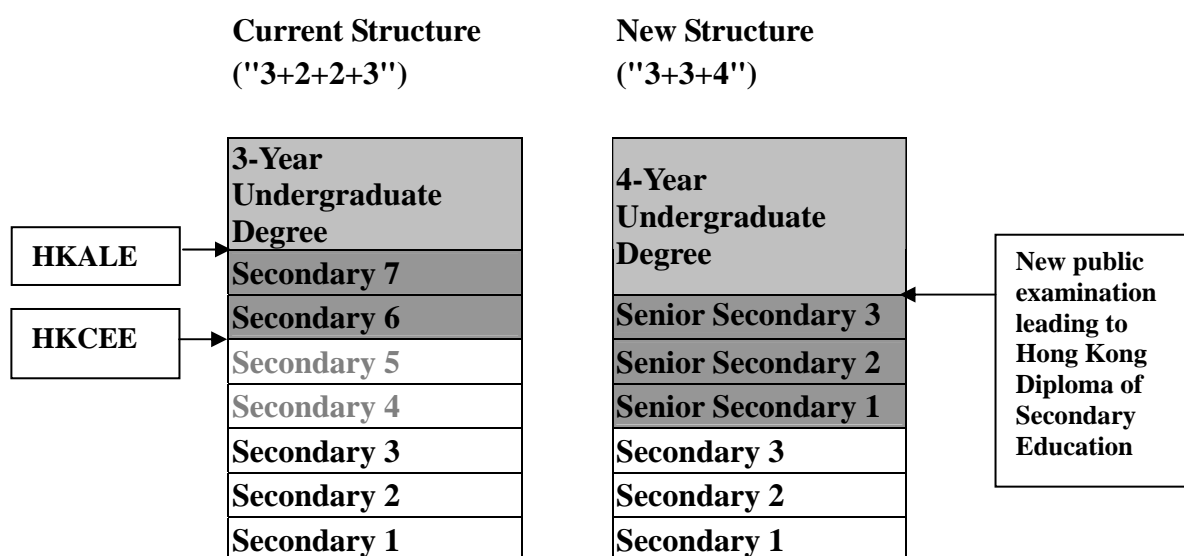
**結論:** 文獻與數據皆顯示出，無論在一個如何完善的教育制度下，中學輟學率都不能避免。而這就正是「安全網計劃」的必需性所在。配合香港新的 3+3+4 中學學制所推出的新版本毅進計劃，對於整體的教育結構是必須的，計劃能幫助扭轉一個在傳統上分散及精英化的制度，達至一個全民教育的理想。而新舊毅進計劃的課程設計都會集中在學生的基本學術技巧及多元性的科目進修上，藉以提升學生對學習的興趣。

## Introduction

In accordance with the educational direction of lifelong learning initiated by the Education and Manpower Bureau (EMB) since 2000, the Hong Kong Chief Executive announced in his

2004 Policy Address that a new senior secondary and university system will be established to effectively prepare our next generation to cope with the challenges of the 21<sup>st</sup> Century. An overview of the current and the new academic structure is depicted in Figure 1.

**Figure 1: Comparison of the Current and the New Academic Structure**



Source: *Reforming the Academic Structure for Senior Secondary Education and Higher Education - Actions for Investing in the Future*, 2004

In the current "3+2+2+3" academic system, students face two public examinations, namely, the Hong Kong Certificate of Education Examination (HKCEE) and the Hong Kong Advanced Level Examination (HKALE), within four years (two years for the senior secondary and two for the matriculation). Moreover, only about one-third of senior secondary students can be promoted to S6. As

a corollary, the Hong Kong education system becomes too segregated and the learning too much examination-driven ([www.emb.gov.hk](http://www.emb.gov.hk)). In order to alleviate this problem, new reforms are now in place. According to the document, titled *Reforming the Academic Structure for Senior Secondary Education and Higher Education - Actions for Investing in the Future*, released by the EMB in October 2004, the new

“3+3+4” academic system is envisaged that all students will have an opportunity to study 3 years at the senior end of the secondary school by eliminating one public examination. Nonetheless, significant amount of school dropouts from the new senior secondary school arrangement will inevitably pose a problem in the system. Documentary evidence in a good number of the Organization for Economic Cooperation and Development (OECD<sup>1</sup>) countries reflects that “even though more than one third of students across OECD countries, and around 50% in some countries, currently obtain university degrees, a large amount of young people yet are incapable of completing secondary school, today’s baseline for finding a decent job” (www.oecd.org).

Low educational attainments seem to be an obvious obstacle in employment. According to the OECD report in 2006, on average, around 84% of those with tertiary education qualification are in employment in OECD countries. In contrast, only 56% of people without upper secondary qualifications have jobs. Of those who do, 26% earn one-half or less than one-half of the national median earnings. “In OECD countries, better educated people face a lower risk of unemployment and their labor force participation rates tend to be higher” (UNESCO-UIS / OECD, 2005). Diversified and flexible education systems for the lifelong learning and continuing education perspectives have been implemented in OECD countries in order to decrease the proportion of school dropouts since the late 1980s. The experience of the reform measures in the OECD countries can serve the educational development of Hong Kong important lessons.

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<sup>1</sup> OECD is a global platform for governments to discuss and cope with a variety of economic, social, educational and environmental issues. The thirty OECD member countries in total consist of “Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States”. Moreover, it has seamless collaboration with the Commission of the European Communities. (OECD, 2006)

Apart from studying those OECD countries, countries proximal to Hong Kong are also included in our study as the competency and interactions among Asian countries should not be underestimated. Alternative pathways, in line with other OECD countries and those nearby Hong Kong, are necessary to be incorporated in the senior secondary education system of Hong Kong so as to make schooling flexible, strengthen youngsters’ motivation to learn and improve their employability.

## **Senior Secondary Articulation Policy in Global Countries**

If we want to secure the future opportunities of the younger generation in Hong Kong, looking at other countries may lead us to examine aspects of our own practices that might have room for further improvement. In light of assisting young people to get a better start in life, we devote effort to study the education systems of OECD countries with outstanding economy (nominal GDP<sup>2</sup>) (International Monetary Fund, 2006) as well as the countries which are in neighborhood of Hong Kong.

The OECD is a well-established platform where governments can coordinate and discuss issues like global challenges in economic, social, educational and environmental aspects (OECD, 2006). Of the thirty OECD member countries worldwide, we will focus on those countries with strong economic performance on the ground that outstanding economy is highly correlated to the educational level of citizens (www.oecd.org). As noted, “the World Education Indicators Programme (WEI) study results indicate that every single year that the average level of schooling of the adult population is raised there is a corresponding increase of 3.7% in long-term economic growth,” (UIS/OECD, 2003). Moreover, as

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<sup>2</sup> Gross domestic product (GDP) (nominal) refers to the market value of all final goods and services produced within a nation in a given year (<http://en.wikipedia.org>) and data are in billions of current United States dollars.

Hong Kong is an important commercial centre in Asia that interactions with Asian countries should not be underestimated, we also take some competitive Asian countries into account.

In summary, we will investigate eleven selected countries and regions with strong economic performance and those in promixity to Hong Kong: *U.S., Germany, UK, Canada, Australia, Japan, Korea, China, Taiwan, Singapore, and Macao*. While the education

system as a whole is important and will be briefly addressed, the continuing education and alternative pathway from senior secondary schooling to higher education of each country is the emphasis of the present paper.

Prior to entering into a detailed depiction of each country, it would be helpful to summarize key figures from each of the country's education systems as shown in Table 1.

**Table 1. Comparison of selected countries**

Indicators		Year	AUS	CAN	GER	JPN	KOR	UK	US	CHN	TW	SGP	MC	HK
<b><u>Socio-economic context</u></b>														
Nominal GDP (in billion local dollars) (Note 1)		2005	(b) 865.47	1371.4	2241.0	502479.3	806621.9	1224.7	12455.8	18308.5	11131.6	194.4	54.1	1382.1
Total public expenditure on education as a % of GDP (Note 2)		2004	4.8	5.2	4.8	3.7	4.6	5.5	5.9	(c) 2.8	(a) 4.6	3.5	2.9	4.7
Youth unemployment (% ages 15-24) (Note 10)		2000	12.3	14.0	7.7	9.2	14.2	12.3	9.9	3.1	n.a.	7.1	9.9	10.8 (Year 2005)
<b><u>National education systems</u></b>														
Duration of education (years)	Primary level		6 or 7	6	4	6	6	6	6	5 or 6	6	6	(p) 4or6	6
	Lower secondary level		3 or 4	3	5 or 6	3	4	3	3	3	3	3	(p) 3or5	3
	Upper secondary level		2	3	3	3	4	(n1) 2	3	3	3	(n2) 1or2	(p) 2or3	(n1) 2
Gross enrollment rate (%)	Primary level (Note 3)	2004	102.8	100.2	100.2	100.4	105.1	106.5	99.0	117.6	101.0	114	105.6	108.1
	Secondary level (Note 4)	2004	148.6	108.5	100.3	101.6	90.9	104.5	94.7	72.5	98.2	85	95.9	84.9
	Tertiary level (Note 5)	2004	72.2	60.2	n.a.	54.0	88.5	60.1	82.4	19.1	78.6	(o) 53	68.8	(r) 66 (Yr 05/06)
Pupils not admitted to tertiary education (%) (Note 11)		2004	27.8	39.8	n.a.	46.0	11.5	39.9	17.6	80.9	21.4	47	31.2	(r) 34 (Yr 05/06)
Alternative pathways on offer at the articulation of upper secondary school education (Note 12)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓

Indicators		Year	AUS	CAN	GER	JPN	KOR	UK	US	CHN	TW	SGP	MC	HK
<b><u>Educational attainment</u></b>														
Educational attainment expressed in average number of years in formal education (25-64 years old)		2004	12.6	13.2	13.4	12.4	12.0	12.6	13.3	(h) 11.9	n.a.	(m) 8.8	n.a.	n.a.
Educational attainment of the population aged 25 to 64 years who has attained:	At least upper secondary education (%) (Note 6)	2004	64	84	84	(c) 84	74	65	88	(c),(q) 19	(e) 49	(f) 21.1	(g) 25.8	60.0 (Year 2005)
	Total Tertiary (%) (Note 7)	2004	31	45	25	(c) 37	30	29	39	(c),(q) 5	(e) 21	(f) 7.6	(g) 5.9	23.5 (Year 2005)
	Tertiary (Type B) education (%) (vocational-oriented) (Note 7)	2004	9	22	10	(c) 17	8	9	9	n.a.	n.a.	n.a.	n.a.	n.a.
	Tertiary (Type A) and advanced research education (%) (academic-oriented) (Note 7)	2004	22	22	15	(c) 21	22	20	30	n.a.	n.a.	n.a.	n.a.	n.a.
Upper secondary incompleteness rates (%) (Note 8)		2004	(k) 30	n.a.	1.05	8.63	3.89	n.a.	24.57	69.1	(i)	(l)	22.7	n.a.
Tertiary graduation rate (%) (first-time graduation) (Note 9)		2004	(t) 48.1	(u) 0.8	32.9	63.4	(u) 1.1.	57.5	44.2	(v)	(j)	13.4	n.a.	(s) 3.07 (Year 2005)

**Sources:**

- OECD
- UNESCO
- International Monetary Fund (World Economic Outlook Database)
- World Bank
- Hong Kong Annual Digest of Statistics
- Ministerial Council on Education, Employment, Training and Youth Affairs (Australia)
- Ministry of Education of the People's Republic of China
- ROC Ministry of Education (Taiwan)
- Ministry of Education (Singapore)
- Hong Kong: Report for the year 2005
- General Household Survey Section, Census and Statistics Department, Hong Kong SAR
- Yearbook of statistics, Singapore
- Education statistics of the Republic of China
- Educational statistics yearbook of China
- China Education Yearbook
- China labour statistical yearbook
- Yangtze River Delta & Pearl River Delta and Hong Kong & Macao SAR statistics yearbook
- 中國統計年鑒
- 教育數字概覽 (澳門)

**Remarks:**

Countries are presented in order of those which are existing OECD members whilst the remaining not yet.

**Codes used for representing the territory entities**

US	United States	KOR	Korea, Republic of
GER	Germany	CHN	China
UK	United Kingdom	TW	Taiwan
CAN	Canada	SGP	Singapore
AUS	Australia	MC	Macao
JPN	Japan		

**Symbols for missing data:**

N.A. Data not available.

## Notes:

- (1) Gross domestic product (GDP) (nominal) refers to “the market value of all final goods and services” produced within a nation in a given year (<http://en.wikipedia.org>) and data are in billions of current local dollars (Data source: International Monetary Fund).
- (2) Public expenditure on education (% of GDP) is “the current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as a percentage of the gross domestic product”. (World Bank)
- (3) Gross enrollment ratio (primary level) is “the number of pupils enrolled in primary, regardless of age, expressed as a percentage of the population in the theoretical age group for primary education”. (World Bank)
- (4) Gross enrollment ratio (secondary level) is “the number of pupils enrolled in secondary, regardless of age, expressed as a percentage of the population in the theoretical age group for secondary education”. (World Bank)
- (5) Gross enrollment ratio (tertiary level) is “the number of pupils enrolled in tertiary, regardless of age, expressed as a percentage of the population of the five-year age group following on from the secondary school leaving age”. (World Bank)
- (6) At least upper secondary education excludes pre-primary, primary and lower secondary education.
- (7) Tertiary education can be classified into three types of educational programmes – Type A, Type B and Advanced Research programmes. Type A and type B programmes can be distinguished by the International Standard Classification of Education (ISCED). “Tertiary type A programmes are largely theoretically-based and are designed to provide qualifications for entry into advanced research programmes and professions with high skill requirements. These programmes lead to the equivalent of bachelor, master or diploma degrees. Tertiary type B programmes are more occupationally-oriented and prepare for direct entry into the labor market. The programmes are typically of shorter duration than type A programmes (usually two to three years) and do not lead to advanced research programmes.” (OECD)
- (8) Data refer to the percentage of upper secondary students who are incapable of graduation<sup>3</sup> to the population at the typical age of graduation<sup>4</sup>. It is calculated by subtracting the upper secondary graduation rate to the population at the typical age of graduation from 100%.
- (9) Data refer to “the percentage of tertiary graduates<sup>5</sup> to the population at the typical age of graduation”. (OECD)
- (10) Youth unemployment refers to “the share of labor force ages 15-24 years old without work but available for and seeking employment”. (World Bank)
- (11) Data are calculated by subtracting gross tertiary enrollment ratio from 100%.
- (12) Alternative pathways refer to another route(s) available at the upper secondary school level which can lead to tertiary education aside from the regular conventional educational track.
  - (a) Year of reference 2005.
  - (b) Year of reference 2004.

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<sup>3</sup> According to OECD (2005), “graduates are those who were enrolled in the final year of a level of education and completed it successfully during the reference year.”

<sup>4</sup> With reference to OECD (2005), “typical ages refer to the ages that normally correspond to the age at entry and end of a cycle of education. These ages relate to the theoretical duration of a cycle, assuming full-time attendance and no repetition of a year. The assumption is made that, at least in the ordinary education system; a student can proceed through the educational programme in a standard number of years, which is referred to as the theoretical duration of the programme. The *typical graduation age* is the age at the end of the last school/academic year of the relevant level and programme when the qualification is obtained. In many countries, defining a typical age of graduation is difficult because ages of graduates vary. In that case, the average cohort size for a wider age band is used as denominator.”

<sup>5</sup> According to OECD (2005), “graduates are those who were enrolled in the final year of a level of education and completed it successfully during the reference year. However, there are exceptions (especially at the tertiary level of education) where graduation can also be recognized by the awarding of a certificate without the requirement that participants are enrolled.”



- (c) Year of reference 2003.  
 (d) Year of reference 2002.  
 (e) Year of reference 2001.  
 (f) Year of reference 1995.  
 (g) Year of reference 1991.  
 (h) Year of reference 2002/03.  
 (i) Number of upper secondary school graduates, including those from senior high school and senior vocational school, amounts to 218,392 persons in 2003. (Data source: *Education statistics of the Republic of China*).  
 (j) Number of tertiary graduates in 2004 is 230,799 persons (Data source: *Education statistics of the Republic of China*).  
 (k) Exclude vocational-related programmes.  
 (l) Passing rate at GCE 'O' level, which requires at least 3'O' level passes, attains to 95% in 2004.  
 (m) For those aged 25 years and over.  
 (n1) Upper secondary education of United Kingdom and Hong Kong excludes the 2-year matriculation study.  
 (n2) Upper secondary education of Singapore excludes the pre-university education (two to three years), equivalent to matriculation study.  
 (o) Typical age group ranges from 15 to 24 years old.  
 (p) Macao's schooling is not centralized but classified into three types of systems, namely, Chinese, British and Portuguese, as shown below. (MindBit)  
 (q) Data refer to the educational attainment of the population aged 6 and over. (Data source: *China Education Yearbook*)  
 (r) Data refer to the population aged from 17- to 20-year-old.  
 (s) Data refer to the tertiary education embracing full-time (FT) and part-time (PT) sub-degree, undergraduate, taught postgraduate and research postgraduate programmes. The typical age of tertiary graduation ranges from 20 to 29 years old. The table of tertiary graduates in the academic year 2004/05 is shown as below (Data source: University Grants Committee, Hong Kong SAR)

Level of Study	Mode of Study	Headcount (Year 2004/2005)
Sub-degree	FT	3848
	PT	3131
Undergraduate	FT	14070
	PT	1073
Taught Postgraduate	FT	1591
	PT	3262
Research Postgraduate	FT	1338
	PT	343
Total	FT	20847
	PT	7809

(t) Excluding graduation rate of tertiary-type B programmes due to the unavailability of data.

(u) Excluding graduation rate of tertiary-type A and tertiary-type B programmes due to the unavailability of data.

(v) Number of tertiary graduates in 2004 is 4,986,093 persons (Data source: *China Education*)

*Yearbook*).

## **Australia**

Students commencing Bachelor degree courses are admitted via different mechanisms. Generally, the most common phenomenon for admission to university education is completion of upper secondary schooling and the receipt of the upper secondary certificates. In 2001, 41% of Bachelor's degree students are admitted from the satisfactory completion of secondary education (Department of Education, Science and Training, 2002).

As the upper secondary education graduation rate is 70% for general programmes and 54% for vocational programmes in 2004 (OECD, 2006), which implies a significant amount of school dropouts, alternative pathways are provided for admission to Bachelor's degree on the basis of mature age, studies in the Vocational education and training (VET) sector, and examination or assessment taken by the university. Gaining entrance through these routes are quite common in Australia in which 31% of non-overseas students starting Bachelor's degree course were admitted via these pathways in 2001 (OECD, 2003). In other words, early secondary school-leavers or those who cannot admit to university after completion of secondary education can continue education by studying VET, or adult and community education for articulation to university. Students may obtain the upper secondary certificates, equivalent to upper secondary schooling qualification, or VET certificates and diplomas for the continuation of further study in higher education (OECD, 2003).

## **Canada**

Amongst the OECD countries, Canada is the country of the highest proportion of its population, aged 25 to 64, whom has completed tertiary education in 2004 (see Table 1). Almost half of the population (45%) has attained

tertiary-level qualification (OECD, 2006). Its education system is well-developed in which alternative routes are offered for school dropouts.

Supervised Alternative Learning for Excused Pupils (SALEP) is designed for students aged 14- or 15-year-old who are not able to cope with the demands of the regular or conventional schooling due to all sorts of reasons. As every student is recognized as different individual with unique talent, an alternative option is offered to them to earn high school credits through SALEP program. The program consists of academic knowledge, life skills training and work experience through company placement. SALEP is known as "Early School Leave Program or Attendance Modification". Students can return to regular educational track and complete the high school diploma requirements for further advancement. ([http://www.ilc.org/cfm/CM/HighSchool/cm\\_alternatives.cfm?Menu\\_ID\\_Sel=5296&Lang\\_Sel=1&type=other&alternative\\_id=6](http://www.ilc.org/cfm/CM/HighSchool/cm_alternatives.cfm?Menu_ID_Sel=5296&Lang_Sel=1&type=other&alternative_id=6)).

Adults with the minimum of 18 years of age, yet have not graduated from high school and have been out of school for a certain period of time, depending on individual province, for instance, one year in the province of Ontario, can acquire *General Educational Development* (GED) program to obtain High School Equivalency Certificate. GED is an international testing program that "measures the level of educational maturity gained through experience". When student passes the GED tests, High School Equivalency Certificate is obtained which is widely accepted as equivalent to a high school diploma for purposes of employment and further study.

## **Germany**

In Germany, the proportion of upper secondary graduates to the population at the typical age of graduation, 99%, is the

highest amongst the OECD countries (see Table 1) that almost all typical-aged youngsters are able to complete the upper secondary schooling.

The German school system classifies students into various types of lower-secondary schools according to their interests and abilities: *Hauptschule*, *Realschule*, *Gymnasium* and *Gesamtschule* (Jonen and Eckhardt, 2006), with completion of 5 or 6 years of schooling. Generally, students follow a specified study pathway with the threshold of different types of lower secondary schools. The *Gymnasium* (grades 5-13 in most states) leads to the *Abitur* and prepares the highest-achieving students for university study, or apprenticeship followed by university education. The *Gesamtschule* offers students a comprehensive study by involving different streams in school. However, it is very common to switch students who do not perform well to a lower-leveled school (National Institute on Student Achievement, Curriculum, and Assessment, Office of Educational Research and Improvement, and U.S. Department of Education, 1999). For such kind of students, they are supposed to either enter the less-competitive *Hauptschule* (grades 5-9 in most states) or the more-competitive *Realschule* (grades 5-10 in most states) leading to receipt of the *Hauptschule* certificate and the *Realschule* certificate respectively. They can then proceed to vocational upper secondary schools with apprenticeship followed by the admission to university, or continuation of study at a *Gymnasium* for those students who already have obtained the *Realschule* certificate. It is noted that practical education is a vital element in the curriculum design of an alternative path.

## Japan

Japan is a country of the highest tertiary graduation rate (63.4%) among the

selected countries in 2004 out of the population at the typical age of graduation (see Table 1). However, a portion of students (8.63%) have not successfully graduated in their upper secondary education (see Table 1). With an emphasis on equity in learning (U.S. Department of Education [USED], 1987), alternative pathways are provided for at-risk students to renew their study equitable to senior secondary schooling, in turn to further pursue higher education opportunity.

The Ministry of Education (Monbusho) offers 9-year compulsory education, based on a 6+3+3+4 model: 6 years at elementary school (*shogakko*), 3 years at lower secondary school (*chugakko*), 3 years at upper secondary school (*kotogakko*), and 4 years at universities (*daigaku*). Following the completion of upper secondary education, two typical higher education institutions are provided, which are the 4-year university (*daigaku*) and the 2-year junior college (*tanki daigaku*). The upper secondary curriculum in Japan is classified into two main categories with regard to its content: academic courses (*futsuka*) and vocational courses (*shokugyoka*) (Stevenson *et. al.*, 1999). In light of the purpose of continuing education and the principle of equity in education, for those who are incapable of completing the upper secondary schooling, a variety of alternative pathways leading to university qualification are introduced in addition to the formal education path as mentioned above. Entrance examination for admission to these schools is usually not necessary and only a relatively easy test is administered.

*Colleges of Technology*  
(*koto-senmon-gakko*)

College of technology accept students who have completed lower secondary schooling by offering “five-year consistent programs leading to the title of associate” (Ministry of Education,

Science, Sports and Culture, 1996) and courses mainly focusing on vocational field, for instance, engineering.

#### *Special Training Colleges (Senshu-gakko)*

Special training schools, targeting at providing education pertaining to vocations or to help the improvement of the general education, offer two types of courses: upper secondary courses, equivalent to upper secondary schooling; and postsecondary courses, comparable to associate study. The schools providing the upper secondary courses offer three-year programme and are eligible for students who have completed the compulsory education (i.e. lower secondary schooling). Upon graduating from the upper secondary courses of special training colleges, a “technical associate (*Senmonshi*) will be awarded, which is the key to university education (Ministry of Education, Science, Sports and Culture, 1996).

### **Korea, Republic of**

The proportion of upper secondary graduates to the population at the typical age of graduation in 2004 has attained 96% (OECD, 2006), i.e. the second highest among our referred countries (see Table 1). This promising educational attainment is believed to be attributed to a well-developed educational structure that offers a regular pathway for every citizen without discrimination.

Korea provides a single-track 6+4+4+5 education system which comprises of primary, secondary (lower and upper), and tertiary education. Alternative pathways are provided for students who have not completed secondary and higher education to enhance one’s potential. With reference to the Ministry of Education and Human Resources Development, “the Lifelong Education Law, established in August 1999 under the Social Education Promotion Law, the Korean government provides strong

support for related education institutes.” Para-schools are the lifelong educational institutions providing a channel for citizens to persistently enhance one’s competency. Dropouts from high schools have opportunities to pursue high school qualification and receive high school certificates by studying industry-attached schools (middle and high), evening classes offered at schools (middle and high), or completing the Broadcast and Correspondence High School. As stated in the Ministry of Education and Human Resources Development, “there are currently 39 Broadcast and Correspondence High Schools across the nation with a combined enrollment of 13,412”. The selection process of the Broadcast and Correspondence High Schools is rather relaxed without the requiring of taking any entrance exam. With the high school qualification, students can continue higher education with a variety of choices: accreditation programs for self-study, credit bank system, broadcast and correspondence universities, distance learning universities, company-attached universities and industrial universities (<http://english.moe.go.kr/>).

### **United Kingdom**

The government of United Kingdom is committed to transforming the education system for all 14-19 year olds since 1997. The main strategies are: to increase the number of young people participating in education, to decrease the amount of school dropouts and to motivate youngsters to qualify themselves for the success of life (<http://www.dfes.gov.uk>). In United Kingdom, the youth unemployment rate for those ages 15-24 years old attained 12.3% (see Table 1). The White Paper *14-19 Education and Skills* has been released in February 2005 to recommend strengthening the existing educational standard and enriching vocational

education in the system (Department for education and skills, 2005).

Currently, a regular track 6+3+2+2+3 encompassing primary, lower secondary, upper secondary, matriculation and university education is offered. It is highly adhered to the National Qualifications Framework. Traditionally, students study for General Certificate of Secondary Education (GCSEs) during their Years 10 and 11, and then proceed to A levels afterwards for the entry to higher education. Yet, many other multi-entry alternative pathways are available to allow students to progress to higher education. In Years 10 and 11, students might take work-related ('applied') or short course GCSEs in addition to traditional GCSEs, to obtain vocational qualifications. GCSEs are available to anyone who would like to study, and are available at two levels (grade A\*-C at level 2 while grade D-G at level 1). After Year 11, aside from pursuing level-3 A levels qualification, students can either study National Vocational Qualifications (NVQs), City and Guilds, GCEs in applied subjects, BTECs National Diplomas and Certificates, or OCR Nationals for the fulfillment of requirement for getting into a university. For mature students aged 19 or above who have plenty of working experience without traditional entry qualifications can directly study Foundation Years, Foundation course or access to higher education courses as alternatives entering higher education (*ibid*).

On the other hand, in its current educational reform, a new specialized Diploma, comprising academic and vocational materials, covers each occupational sector of the market. Three levels are available: level 1 (foundation), level 2 (GCSE) and level 3 (advanced) (Department for education and skills, 2005). Therefore, young people are granted equal opportunities to develop their potential, talents and get success.

## **United States**

The education system of United States is well-established and committed to achieving educational equity and the best for everyone (USED, 2005). Its upper secondary school completion rate is 75.43% of those at the typical age of graduation. The proportion of its adult population aged 25 to 64 years that has attained at least upper secondary education was 88% which is the highest among the referred countries in 2004 (OECD, 2006) (see Table 1). Nevertheless, tremendous amount of students drop out from high school each year. For instance, there have been 25,000 students per year in Florida and 50,000 students per year in California (USED, 2003). The career choices for those dropouts are refined to the unskilled jobs, leading to a fierce competition for the unskilled job market and inevitably accepting the welfare assistance. It is observed that 42% of welfare recipients do not have a high school diploma (*ibid*).

For students who drop out of senior secondary schools, the only way to proceed to tertiary education is to obtain a high school diploma or, alternatively, a certificate of General Educational Development (GED), by means of enrolling in adult education classes through their local school district. The GED program enables individuals to acquire a level of education by getting a high school certificate which is comparable to that of high school graduates (General Educational Development Testing Service, 1993). To obtain GED, students must successfully pass a series of standardized tests in five subject areas. The passing rate of GED is 62% of those enrolling in the study, in contrast to 75% of the upper secondary school graduation rate.

## **China**

In 2002, the net enrollment rate of junior secondary schools has been raised to 90% and 58.3% of the junior secondary school graduates continue their study in senior secondary schools. In 2001/02, the average completion rates at upper secondary level in China are 39% --- though in urban centers such as Beijing the rates can reach 92% (OECD, 2005). In 2004, the gross enrolment rate for tertiary education in China has reached 19.1% (World Bank) that millions of students receive all types of tertiary education. Since the 90's, China has been aiming at transiting the tertiary education from an elite to a mass system. Its national policies of the expansion of the tertiary education include opening up for adults all forms of tertiary education, in particular to those who have been under-prepared and opted out of the initial university examination, go on to graduate and move onto the social ladder.

### **Taiwan**

Primary and junior high schooling are mandatory. In 2004, 96.03% of junior high school students continue onto senior high and vocational schools (Education Statistics of the Republic of China, 2005). Vocational school graduates may participate in the national university entrance exams, it is not peculiar for students to select vocational school over high school and proceed to a four year college afterwards. There are over 100 institutions of Higher Education in Taiwan. In 2004, 78.6% of the typical age group are accepted to higher educational institutions (see Table 1).

Supplementary and continuing education provide citizens with an alternative way to achieve their educational goals. Based on the curriculum provided, it is classified into three main categories, including basic education, advanced study and short-term supplementary

education. The study periods vary according to their curriculum design.

### **Singapore**

In recent years, the Singaporean government has declared for heading towards an education system of more flexibility and diversity. It aims at providing students with a more broad-based education. Students hence can have greater choice to meet their different interests and style of learning. All-round and holistic development, character building as well as the life-long learning passion development are the focuses.

In secondary schooling (four-five years), students are classified into various streams. Students will be placed in either Special/Express, Normal (Academic) or Normal (Technical) stream, depending on how they perform at the Primary School Leaving Examination (PSLE), leading to the National examinations: GCE "O" Levels for Special/Express courses or GCE "N" Levels for Normal course.

"A-Level" is the authorized benchmark for the admission of the two so-called autonomous universities, namely National University of Singapore and Nanyang Technological University, with certain minimum academic requirements. For students with GCE "O" or "N" Level certificates, as well as those who cannot do well in the A-Level examination, they may opt for the Institute of Technical Education (ITE) which offers 1- to 2- year technical or vocational courses. Students who do well will be able to proceed to polytechnics for diploma programs. From 2006 onwards, the polytechnics may admit up to 15% of their respective intakes based on students' special talents and aptitudes. A 3-year course is the norm. Polytechnic graduates with good grades have the opportunity to pursue tertiary education at the universities.

On the other hand, early in senior high school years, students can already choose other academic options for attaining alternative qualifications, i.e. 4-6 years' Specialized Programmes are offered to develop students' special abilities; students who enroll in privately-funded schools can design their own 4-6 years' tailor-made curricular including students who either follow a mainstream curriculum with programmes catering to their special needs or an entirely customized special education curriculum. All of these alternative pathways can end up to admission to universities, if students prefer.

In a nutshell, the education system in Singapore is renowned of its flexibility and "multiple opportunities" concept. Students can move from one course to another based on their performance as assessed by their principals and teachers. Both academically-less competitive and gifted students can be well taken care of.

### **Macao**

Most of the schools in Macao are private or subsidized schools. In general, a basic nine-year compulsory free education is offered to all citizens. The majority of the schools in Macao are grammar schools. There are only a few vocational schools in Macao offering technical subjects.

It is noted that Macao does not have its own universal education system for the time being nor a well-established system of alternative pathways provided for citizens. In this way, schools in Macao follow different educational systems that reflect their goals and visions. In general, there are three types of educational systems, namely, the Chinese educational system, the British educational system, and the Portuguese educational system, in which the number of years of the primary, junior and upper secondary as well as the matriculation schooling vary in respective systems. In

recent years, the Macao government has made an attempt to unify the educational system. However, such an attempt has not been well accepted by the educational circles, especially those from the schools that follow the British system.

There are more than ten higher-learning institutions in Macao. Some students choose to further their studies in the local universities or polytechnics whereas some others choose to further their studies in China, Taiwan, Hong Kong, the UK, the US, Canada, Australia, or some other places.

### **Conclusion**

There is not a single so-called perfect education system in the world. Some cater for students better in some ways while some have inevitable trade-offs. With reference to the phenomenon of education of the referred OECD countries as mentioned above, it is clear that there are persistent school dropouts from the senior secondary school, varying from the lowest of 1.05% (Germany) to the highest of 69.1% (China) (see Table 1). A good education system can boost up the overall national literacy and education rate. However, it is only part of the story because successful completion is another. Diversified and flexible education systems for the lifelong learning and continuing education perspectives have been successfully implemented in most of these countries with a view to easing the early school-leaving problem. The experience and the infrastructures of the continuing education in these countries serve the educational development of Hong Kong important lessons.

The current education system in Hong Kong appears to be relatively segregated as comparative to its counterparts in the global education systems. Upon the launching of the educational reform in Hong Kong in which one public examination is eliminated, every student



is likely to be assumed capable of studying and learning till the satisfactory completion of the senior secondary. However, as mentioned above, it seems rarely to be the real case with regard to the educational circumstances of other countries in which alternative pathways have long been offered in order to cater for the early school-leavers from the regular educational track.

Back to the birth of Project Yi Jin (PYJ) in 2000, its fundamental philosophical belief and rationale are closely intertwined with the “start-again” concept as well as the “safety-net” notion. Take Japan as an example. With a focus on equity in learning (USED, 1987), the Japanese government has provided alternative academic pathways for at-risk students to renew their studies equitable to senior secondary schooling, so that they are able to pursue higher education. This arrangement is very similar to that of the Yi Jin’s “start-again” concept.

However, it is important to note that Hong Kong is eminent as a financial centre, not an industrial city. Also, a modern society is a knowledge-explosive society in which the learning and working context is ever-changing. Some new career and technology skills are soon to be faded out. Thus, an individual’s basic generic skills and knowledge are the most essential elements. Therefore, from the education system of the selected countries, it is observed that there is a tendency that alternative routes are offered in addition to the regular track, emphasizing the stronger vocational context like those as offered by the vocational training council in Hong Kong. However, the new Project Yi Jin (nPYJ) program envisioned to continually to embrace context pertaining to the emphasis on students’ general generic skills including basic language skills, mathematics and IT skills, and interpersonal skills, instead of

the vocational ones. There are also a variety of electives in areas of elementary vocational or professional knowledge for the students to choose from. In 2006-07, there are over 200 electives offered by different programme providers. These electives are mainly used to help arouse students’ interest of study. Such a rationale is promising and crucial to be incorporated into Hong Kong’s new 3+3+4 education system as an alternative pathway to the regular single-track for the purpose of making schooling diversified and flexible, strengthening youngsters’ motivation to learn, widening participation in higher education, and improving employability of those students in danger of dropping out.

In the past six years, the Hong Kong government has insightfully endorsed the vision of PYJ. Financial-wise, on top of the 5 million seed money, that every PYJ student gets the 30% tuition refund provided by the government on the condition that they will have successfully completed the program. Actually it is a very wise constitutional schema since, in the case of U.S., stunning financial cost is noted that additional US\$10 billion in taxpayer’s fund is estimated to be spent on the crime, prison and welfare expenses attributed to each year’s class of dropouts, and a loss of US\$240 billion income and taxes over lifetime of such students has occurred (USED, 2003).

On the other hand, the amount of dropouts in high school is related to all sorts of reasons, especially high with family, community, race and ethnicity and gender (Stevenson *et. al.*, 1999). As Mrs. Laura Bush has strongly encouraged the urgency of “a nationwide effort to raise awareness about the challenges facing our youth, particularly at-risk boys” with aspect of family, school and community (USED, 2006), the PYJ and the nPYJ literally have “brought hope” to so many kids

and families in the territory whom have otherwise lost their dream of further study.

Academic-wise, the Project Yi Jin , from its successful implementation in 2000, to its current proposed transmutation to the nPYJ envisioned to be realized in 2010, confers beautifully with the educational rationale of the new fashion of the emerging contemporary continuing education and lifelong learning as well as the educational policy scene, which focuses on the fulfillment of individual self-realization, social equity and its flexibility. In the Hong Kong Education Commission (EC's) Education Reform document, "Learning for life, learning through life" (2000), this focus has been

adopted in which higher education has been re-defined to cover all learning opportunities above the secondary level that includes colleges and tertiary institutions of various nature and purposes other than merely conventional studies in universities. In essence, the definition has shifted from a focus on purely academic work to more diversified and flexible ways of lifelong learning by opening up multiple channels for learners of all ages and a diversity of abilities to pursue higher education in a much boarder sense. The invention of PYJ and its continuation as fashioned in a new version of PYJ is in its ripe.

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